

Serial no. 09/995,166
Response to Office Action mailed on September 16, 2003
Page 2

IN THE CLAIMS

Please amend the claims as follows:

1. (original) A portable induction heating system, comprising:
a power source;
a fluid cooling unit operable to provide a flow of cooling fluid;
an induction heating device that is electrically coupleable to the power source and
fluidically coupleable to the fluid cooling unit;
a system controller operable to control operation of the power source; and
a flow switch that is electrically coupled to the system controller and operable to
sense the flow of cooling fluid,
wherein the system controller controls operation of one of the power source and
the fluid cooling unit to prevent heat damage to the induction heating device when the
flow of cooling fluid through the flow switch is below a desired flow rate.
2. (original) The system as recited in claim 1, wherein the system controller
controls operation of the power source to prevent power from being applied to the
induction heating device when the flow of cooling fluid through the flow switch is below
the desired flow rate.

Serial no. 09/995,166
Response to Office Action mailed on September 16, 2003
Page 3

3. (original) The system as recited in claim 1, wherein the system controller controls operation of the fluid cooling unit to increase fluid flow when the flow of cooling fluid through the flow switch is below the desired flow rate.

4. (original) The system as recited in claim 1, wherein the flow switch is located downstream of the induction heating device.

5. (original) The system as recited in claim 1, wherein the controller comprises an indicator to provide an indication when the flow of cooling fluid through the flow switch is below the desired flow rate.

6. (original) The system as recited in claim 5, wherein the indicator is a visual indicator.

7. (original) The system as recited in claim 5, wherein the indicator is an audible indicator.

8. (original) The system as recited in claim 5, comprising a communication circuit operable to contact a user electronically when the flow of cooling fluid through the flow switch decreases below the desired flow rate.

9-21. (cancelled)

Serial no. 09/995,166
Response to Office Action mailed on September 16, 2003
Page 4

22. (original) A method of operating a portable fluid-cooled induction heating system having a portable fluid cooling unit with a supply side and a return side, comprising:

routing cooling fluid from a portable fluid-cooling unit to a fluid-cooled induction heating apparatus;

routing the cooling fluid from the fluid-cooled induction heating apparatus to a flow sensor operable to sense cooling fluid flow;

providing a desired cooling fluid flow to the fluid-cooled induction heating apparatus; and

automatically removing power from the fluid-cooled induction heating apparatus when the flow sensor indicates that cooling fluid flow is less than the desired cooling fluid flow.

23. (original) The method as recited in claim 22, comprising prohibiting power from being applied to the fluid-cooled induction heating apparatus when the flow sensor indicates that cooling fluid flow is less than the desired cooling fluid flow.

24. (original) The method as recited in claim 22, comprising providing a visual indication on a controller operable to control power to the fluid-cooled induction heating apparatus when the flow sensor indicates that cooling fluid flow is less than the desired cooling fluid flow.

Serial no. 09/995,166
Response to Office Action mailed on September 16, 2003
Page 5

25. (original) The method as recited in claim 22, comprising providing an audible alarm when the flow sensor indicates that cooling fluid flow has dropped below the desired cooling fluid flow.

26. (original) The method as recited in claim 22, comprising providing an electronic signal to a communication device when the flow sensor indicates that cooling fluid flow has dropped below the desired cooling fluid flow.

27. (original) A method of assembling a portable induction heating system at a worksite, comprising:

fluidically coupling a first end of a fluid-cooled induction heating device to a supply side of a fluid cooling unit;

fluidically coupling a second end of the fluid-cooled induction heating device to a flow sensor operable to sense fluid flow therethrough, the flow sensor being electrically coupled to a power source controller operable to control power from the induction heating device; and

fluidically coupling the flow sensor to the return side of the portable fluid cooling unit.

28. (original) The method as recited in claim 27, comprising wherein the flow sensor is disposed within an enclosure housing the power source controller.

Serial no. 09/995,166
Response to Office Action mailed on September 16, 2003
Page 6

29. (original) A portable induction heating system, comprising:
- a power source;
 - a fluid cooling unit operable to provide a flow of cooling fluid;
 - an induction heating device that is electrically coupleable to the power source and fluidically coupleable to the fluid cooling unit;
 - a system controller operable to control operation of the power source; and
 - a flow switch that is electrically coupled to the system controller and operable to sense the flow of cooling fluid,

wherein the system controller controls the operation of the power source to prevent power from being applied to the induction heating device when the flow of cooling fluid through the flow switch is below a desired flow rate.
30. (original) The system as recited in claim 29, wherein the system controller removes power from the induction heating device when the flow of cooling fluid through the flow switch drops below the desired flow rate
31. (original) The system as recited in claim 29, comprising an indicator to provide an indication when the flow of cooling fluid through the flow switch is below the desired flow rate.
32. (original) The system as recited in claim 31, wherein the indicator is disposed on the exterior of the system controller.

Serial no. 09/995,166
Response to Office Action mailed on September 16, 2003
Page 7

33. (original) The system as recited in claim 31, wherein the indicator is a

visual indicator.

34. (original) The system as recited in claim 31, wherein the indicator is an
audible alarm.

35. (original) The system as recited in claim 31, comprising a communication
circuit operable to contact a user electronically when the flow of cooling fluid through the
flow switch decreases below the desired flow rate.

36-42. (cancelled)